

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	29406	chitin or chitosan	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/05/04 15:53
S2	51	S1 same allergen	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/05/04 15:54
S3	3	chitin adj microparticle	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/05/04 15:53
S4	124	chitin same microparticle	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/05/04 15:54
S5	2	chitin same microparticle same allergen	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/05/04 15:54

Ref	Items	Index-term
E1	2	AU=STRONG, G.E.
E2	1	AU=STRONG, L.C.
E3	0	*AU=STRONG, PETER
E4	1	AU=STRONGANOVA L G
E5	2	AU=STRONGBOW R
E6	1	AU=STRONGBOW R.
E7	1	AU=STRONGBOW REBECCA
E8	1	AU=STRONGE A
E9	2	AU=STRONGE A J
E10	3	AU=STRONGE A J H
E11	2	AU=STRONGE A M
E12	1	AU=STRONGE A.J.

Enter P or PAGE for more

?

Set	Items	Description
S1	20694	CHITIN
S2	15107	CHITOSAN
S3	9708	MICROPARTICLES
S4	104	S1 AND S3
S5	1699	AEROALLERGEN
S6	0	S4 AND S5

TYPE S9/FULL/1-2

9/9/1 (Item 1 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)

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**Intranasal application of chitin microparticles down-regulates symptoms of allergic hypersensitivity to Dermatophagoides pteronyssinus and Aspergillus fumigatus in murine models of allergy.**

AUTHOR: Strong P (Reprint); Clark H; Reid K

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JOURNAL: Clinical and Experimental Allergy 32 (12): p1794-1800 December 2002 2002

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ISSN: 0954-7894 (ISSN print)

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RECORD TYPE: Abstract

LANGUAGE: English

**ABSTRACT:** Background: Previous studies have demonstrated that chitin in the form of microparticles that can be phagocytosed is a potent macrophage stimulator and promotes a Th1 cytokine response and it has been shown that oral administration of chitin microparticles is effective in down-regulating serum IgE and lung eosinophilia in a mouse model of ragweed allergy. To date there have been no studies on the effectiveness of directly applying chitin microparticles to the respiratory tract as a treatment for allergic symptoms. Objective: To test the effectiveness of chitin microparticles when given intranasally as a treatment for the symptoms of respiratory allergy and allergic asthma and to compare its effectiveness in two different mouse models of allergy, namely to Dermatophagoides pteronyssinus and Aspergillus fumigatus. Results: The

intranasal application of microgram doses of chitin microparticles is an effective treatment for reducing serum IgE and peripheral blood eosinophilia, airway hyper-responsiveness and lung inflammation in both allergy models results in elevation in Th1 cytokines IL-12, IFN-gamma and TNF-alpha and reduction in IL-4 production during allergen challenge. Conclusion: Chitin microparticle suspensions have Th1 immunostimulatory properties and are effective when administered intranasally in mice. The stimulation of the nasal associated lymphoid tissue with chitin microparticles could offer a novel and natural approach to treating allergic disease in humans.

DESCRIPTORS:

MAJOR CONCEPTS: Immune System--Chemical Coordination and Homeostasis; Pharmacology

BIOSYSTEMATIC NAMES: Fungi Imperfecti or Deuteromycetes--Fungi, Plantae; Acarina--Chelicerata, Arthropoda, Invertebrata, Animalia; Muridae--Rodentia, Mammalia, Vertebrata, Chordata, Animalia

ORGANISMS: Aspergillus fumigatus (Fungi Imperfecti or Deuteromycetes)--allergen; Dermatophagoides pteronyssinus (Acarina)--allergen; mouse (Muridae)--animal model

COMMON TAXONOMIC TERMS: Fungi; Microorganisms; Nonvascular Plants; Plants; Arthropods; Chelicerates; Invertebrates; Animals; Chordates; Mammals; Nonhuman Vertebrates; Nonhuman Mammals; Rodents; Vertebrates

DISEASES: allergic hypersensitivity--immune system disease, symptom

CHEMICALS & BIOCHEMICALS: chitin microparticles--intranasal application; IFN-gamma {interferon-gamma}; IL-12 {interleukin-12}

METHODS & EQUIPMENT: immunotherapy--clinical techniques, immunologic techniques, laboratory techniques, therapeutic and prophylactic techniques

CONCEPT CODES:

10064 Biochemistry studies - Proteins, peptides and amino acids

17002 Endocrine - General

12512 Pathology - Therapy

22002 Pharmacology - General

34502 Immunology - General and methods

34508 Immunology - Immunopathology, tissue immunology

35500 Allergy

64060 Invertebrata: comparative, experimental morphology, physiology and pathology - Arthropoda: chelicerata

BIOSYSTEMATIC CODES:

15500 Fungi Imperfecti or Deuteromycetes

75403 Acarina

86375 Muridae

9/9/2 (Item 1 from file: 73)

DIALOG(R)File 73:EMBASE

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13169445 EMBASE No: 2005205473

**Review of novel particulate antigen delivery systems with special focus on treatment of type I allergy**

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Journal of Controlled Release ( J. CONTROL. RELEASE ) (Netherlands) 05 MAY 2005, 104/1 (1-27)

CODEN: JCREE ISSN: 0168-3659

DOCUMENT TYPE: Journal ; Review

LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

NUMBER OF REFERENCES: 234

For the treatment of infectious diseases, cancer and allergy, the directed induction of an appropriate immune response is the ultimate goal. Therefore, with the development of pure, often very small proteins, peptides or DNA by molecular biology techniques, the research for suitable adjuvants or delivery systems became increasingly important. Particle formulations are made of a variety of materials, including lipids, proteins or amino acids, polysaccharides, polyacrylic substances or organic acids. Microparticles serve as vehicles and provide a depot for the entrapped or coupled antigen. The release occurs in a pulsatile or continuous manner, a feature, which is well controllable for many particulate systems. Particles attract antigen presenting cells to the administration site, thereby guaranteeing the efficient presentation of the antigen to the immune system. Importantly, particles also protect the entrapped substance. This is especially necessary after oral application to avoid gastric or tryptic breakdown. In this article, the design and construction of different antigen delivery systems and their immune effects, with special focus on the suitability for allergy treatment, are discussed. (c) 2005 Elsevier B.V. All rights reserved.

BRAND NAME/MANUFACTURER NAME: eudragit 1 30 d/Roehm Pharma/Germany; conjuvac/SmithKline Beecham/United Kingdom

MANUFACTURER NAMES: Roehm Pharma/Germany; SmithKline Beecham/United Kingdom  
DRUG DESCRIPTORS:

\*drug carrier--adverse drug reaction--ae; \*drug carrier--drug development--dv; \*drug carrier--drug toxicity--to; \*drug carrier--intramuscular drug administration--im; \*drug carrier--intraperitoneal drug administration--ip; \*drug carrier--intravenous drug administration--iv; \*drug carrier--oral drug administration--po; \*drug carrier--pharmaceutics--pr; \*drug carrier--subcutaneous drug administration--sc; \*allergen--adverse drug reaction--ae; \*allergen--clinical trial--ct; \*allergen--drug development--dv; \*allergen--drug therapy--dt; \*allergen--oral drug administration--po; \*allergen--pharmaceutics--pr; \*allergen--pharmacology--pd  
aluminum potassium sulfate--intraperitoneal drug administration--ip; aluminum potassium sulfate--pharmaceutics--pr; acrylic acid derivative--drug toxicity--to; acrylic acid derivative--intramuscular drug administration--im; acrylic acid derivative--intraperitoneal drug administration--ip; acrylic acid derivative--intravenous drug administration--iv; acrylic acid derivative--oral drug administration--po; acrylic acid derivative--pharmaceutics--pr; acrylic acid derivative--subcutaneous drug administration--sc; microsphere--drug toxicity--to; microsphere--intramuscular drug administration--im; microsphere--intraperitoneal drug administration--ip; microsphere--intravenous drug administration--iv; microsphere--oral drug administration--po; microsphere--pharmaceutics--pr; microsphere--subcutaneous drug administration--sc; polyacrylamide--intramuscular drug administration--im; polyacrylamide--intraperitoneal drug administration--ip; polyacrylamide--intravenous drug administration--iv; polyacrylamide--oral drug administration--po; polyacrylamide--pharmaceutics--pr; polyacrylamide--subcutaneous drug administration--sc; ovalbumin; polymethacrylic acid derivative--clinical trial--ct; polymethacrylic acid derivative--intraperitoneal drug administration--ip; polymethacrylic acid derivative--pharmaceutics--pr; interleukin 4; gamma interferon; cytokine; eudragit--oral drug administration--po; eudragit--pharmaceutics--pr; ragweed antigen--adverse drug reaction--ae; ragweed antigen--clinical trial--ct; ragweed antigen--drug therapy--dt; ragweed antigen--oral drug administration--po; ragweed antigen--pharmaceutics--pr; ragweed antigen--pharmacology--pd; grass pollen extract--adverse drug reaction--ae; grass pollen extract--pharmaceutics--pr; grass pollen extract--pharmacology--pd; grass pollen extract--subcutaneous drug administration--sc; starch microsphere--drug development--dv; starch microsphere--drug toxicity--to; starch microsphere--intramuscular drug administration--im; starch microsphere--intraperitoneal drug administration--ip; starch microsphere--intravenous

drug administration--iv; starch microsphere--parenteral drug administration  
 --pa; starch microsphere--pharmaceutics--pr; starch microsphere  
 --subcutaneous drug administration--sc; conjuvac--pharmaceutics--pr;  
 conjuvac--subcutaneous drug administration--sc; alginic acid--clinical  
 trial--ct; alginic acid--pharmaceutics--pr; house dust allergen--drug  
 therapy--dt; house dust allergen--pharmaceutics--pr; amino acid derivative  
 --adverse drug reaction--ae; amino acid derivative--parenteral drug  
 administration--pa; amino acid derivative--pharmaceutics--pr; ascorbyl  
 palmitate--drug development--dv; ascorbyl palmitate--pharmaceutics--pr;  
 lipid--drug development--dv; lipid--pharmaceutics--pr; chitosan--drug  
 development--dv; chitosan--drug toxicity--to; chitosan--intranasal drug  
 administration--na; chitosan--pharmaceutics--pr; chitin--drug development  
 --dv; chitin--pharmaceutics--pr; collagen--drug development--dv; collagen  
 --pharmaceutics--pr; gelatin--drug development--dv; gelatin--intragastric  
 drug administration--ig; gelatin--intranasal drug administration--na;  
 gelatin--pharmaceutics--pr; ISCOM--clinical trial--ct; ISCOM--pharmaceutics  
 --pr; liposome--pharmaceutics--pr; unindexed drug; unclassified drug

#### MEDICAL DESCRIPTORS:

\*immediate type hypersensitivity--drug therapy--dt; \*drug delivery system  
 particulate matter; drug design; immune response; drug effect; antigen  
 presenting cell; macrophage; particle size; immunization; cellular immunity  
 ; humoral immunity; spleen cell; antibody titer; Th1 cell; Th2 cell;  
 microcapsule; gastrointestinal symptom--side effect--si; diarrhea--side  
 effect--si; side effect--side effect--si; house dust allergy--drug therapy  
 --dt; edema--side effect--si; urticaria--side effect--si; bacterial  
 membrane; Gram negative bacterium; Archaeobacterium; human; nonhuman;  
 clinical trial; review; priority journal

DRUG TERMS (UNCONTROLLED): aspasome--drug development--dv; aspasome  
 --pharmaceutics--pr; archaeosome--drug development--dv; archaeosome  
 --intraperitoneal drug administration--ip; archaeosome--pharmaceutics--pr;  
 archaeosome--subcutaneous drug administration--sc

CAS REGISTRY NO.: 10043-67-1 (aluminum potassium sulfate); 9003-05-8 (  
 polyacrylamide); 77466-29-6 (ovalbumin); 82115-62-6 (gamma interferon);  
 24938-16-7, 51822-44-7, 9065-11-6 (eudragit); 82643-48-9 (starch  
 microsphere); 28961-37-7, 29894-36-8, 9005-32-7, 9005-38-3 (alginic  
 acid); 137-66-6 (ascorbyl palmitate); 66455-18-3 (lipid); 9012-76-4 (  
 chitosan); 1398-61-4 (chitin); 9007-34-5 (collagen); 9000-70-8 (gelatin  
 )

#### SECTION HEADINGS:

026 Immunology, Serology and Transplantation  
 037 Drug Literature Index  
 038 Adverse Reaction Titles  
 039 Pharmacy

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Set	Items	Description
S1	20694	CHITIN
S2	15107	CHITOSAN
S3	9708	MICROPARTICLES
S4	104	S1 AND S3
S5	1699	AEROALLERGEN
S6	0	S4 AND S5
S7	79135	ALLERGEN
S8	5	S4 AND S7
S9	2	RD S8 (unique items)

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